

What is claimed is:

1. A fibrous composite article comprising fibrous material having an average fiber length of less than about 2 millimeters (mm) and a cured, binder resin, wherein the fibrous material comprises a species selected from the group consisting of hemp hurd, kenaf hurd, vegetable bamboo culms, and mixtures thereof.
2. The article of claim 1 comprising fibrous material having an average fiber length of about 0.3 mm to about 1.6 mm and said binder resin, is present in an amount of about 2 wt.% to about 8 wt.%, based on the weight of the fibrous material prior to cure.
3. The article of claim 1, wherein the fibrous material has a specific gravity of about 1 to about 1.2.
4. The article of claim 1, wherein the thermosetting binder resin is selected from the group consisting of amino resins, modified amino resins, phenolic resins, modified phenolic resins, and mixtures thereof.
5. The article of claim 1, wherein the fibrous material has a pre-consolidation moisture content of about 3 wt.% to about 5 wt.%.
6. The article of claim 1, wherein the fibrous material has a pre-consolidation moisture content of about 4 wt.% to about 4.5 wt.%.
7. The article of claim 1, further comprising a sizing agent in an amount of about 1 wt.% to about 3 wt.%, based on the weight of the fibrous material prior to cure.

8. The article of claim 1, further comprising a sizing agent in an amount of about 1.5 wt.% to about 2.5 wt.%, based on the weight of the fibrous material prior to cure.

9. The article of claim 2, wherein the fibrous material comprises hemp hurd and the fibers have an average fiber length of about 0.5 mm to about 0.75 mm and the article contains the cured, binder resin in an amount of about 4 wt.% to about 6 wt.%, based on the weight of the fibrous material prior to cure.

10. The article of claim 9 having a smoothness value of about 2.1 to about 3.8.

11. The article of claim 9 having an internal bond strength of about 140 pounds per square inch (psi) to about 250 psi.

12. The article of claim 9 having a cleavage value of about 45 pounds to about 65 pounds.

13. The article of claim 2, wherein the fibrous material comprises kenaf hurd and the fibers have an average fiber length of about 0.5 mm to about 0.75 mm and the article contains the cured, binder resin in an amount of about 4 wt.% to about 6 wt.%, based on the weight of the fibrous material prior to cure.

14. The article of claim 13 having a smoothness value of about 2 to about 5.

15. The article of claim 14 having a smoothness value of about 2.5 to about 4.2.

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16. The article of claim 13 having an internal bond strength of about 210 psi to about 290 psi.

17. The article of claim 16 having an internal bond strength of about 218 psi to about 279 psi.

18. The article of claim 13 having a cleavage value of about 80 pounds to about 100 pounds.

19. The article of claim 18 having a cleavage value of about 82 pounds to about 95.7 pounds.

20. The article of claim 13 further comprising a wood species selected from the group consisting of aspen, birch, hackberry, fir, hickory, maple, mulberry, oak, pine, and sycamore.

21. The article of claim 20 wherein the wood species is present in a wood species:kenaf weight ratio of about 0.25:1 to about 0.67:1.

22. The article of claim 2, wherein the fibrous material comprises culms of a species of vegetable bamboo selected from the group consisting of high-node (*Phyllostachys promineus*), thunder (*P. praecox f. prevenalis*), red (*P. iridescens*), and mixtures thereof.

23. The article of claim 22, wherein the fibrous material has an average fiber length of about 0.5 mm to about 0.75 mm and the article contains the cured, thermosetting binder resin in an amount of about 4 wt.% to about 6 wt.%, based on the weight of the fibrous material prior to cure.

24. The article of claim 22 having a smoothness value of about 2 to about 9.

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25. The article of claim 24 having a smoothness value of about 2 to about 4.2.
26. The article of claim 22 having an internal bond strength of about 160 psi to about 400 psi.
27. The article of claim 26 having an internal bond strength of about 180 psi to about 375 psi.
28. The article of claim 27 having an internal bond strength of about 225 psi to about 375 psi.
29. The article of claim 22 having a cleavage value of about 65 to about 95.
30. The article of claim 29 having a cleavage value of about 67.2 to about 92.5.

31. A method of making a fibrous composite article, the method comprising the steps of:

- (a) providing fibers comprising a species selected from the group consisting of hemp hurd, kenaf hurd, vegetable bamboo culms, and mixtures thereof;
 - (b) refining the fibers;
 - (c) combining the refined fibers with a binder resin;
 - (d) forming a mat comprising the fibers and binder resin;
- and,
- (e) consolidating the mat under heat and pressure to produce a fibrous composite article.

32. The method of claim 31, wherein step (c) further comprises combining the refined fibers and binder resin with a sizing agent and, step (d) further comprises forming a mat comprising the fibers, binder resin, and sizing agent.

33. The method of claim 32, wherein the fibers are refined to an average fiber length of about 0.1 mm to about 2 mm.

34. The method of claim 31 wherein the fibers have a specific gravity of about 1 to about 1.2.

35. The method of claim 31, wherein the binder resin is a thermosetting binder resin selected from the group consisting of amino resins, modified amino resins, phenolic resins, modified phenolic resins, and mixtures thereof.

36. The method of claim 31, wherein the fibers have a pre-consolidation moisture content of about 3 wt.% to about 5 wt.%.

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45. The method of claim 31, wherein the fiber comprises a

46. The method of claim 45, wherein the fiber comprises a

47. The method of claim 45, wherein the consolidation step

- (a) a first press period having a press cycle time of about 20 seconds to about 30 seconds,
- (b) a breathing period, having a cycle time of 10 seconds to about 15 seconds; and,
- (c) a second press period, having a press cycle time of about 35

48. The method of claim 47, wherein said first and second

49. The method of claim 48, wherein the pressure is in a